Appln No. 09/885,307
Amdt date October 11, 2005
Reply to Office action of August 12, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Previously Presented)   In a communication network including a user station, a method for creating a customized audio program comprising:

automatically processing audio signals of an audio piece and compiling audio characteristic information including acoustic information associated with the audio piece based on the automatically processed audio signals;

receiving user audio preference information;

comparing the user audio preference information with the audio characteristic information;

selecting the audio piece based on the comparison and further based on a detected broadcast time scheduled for the audio piece;

receiving the audio piece broadcast according to the scheduled broadcast time;

storing at least a portion of the received audio piece;

detecting a playback condition: and

outputting at least the portion of the received audio piece responsive to the detected playback condition.

2.   (Original)   The method of claim 1, wherein the audio characteristic information indicates subject matter content of the associated audio piece.

3.   (Original)   The method of claim 1, wherein the audio piece includes music.

4.   (Original)   The method of claim 1, wherein the audio piece includes voice.

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5.   (Original)   The method of claim 1, wherein the audio piece includes an advertisement.

6.   (Original)   The method of claim 1, wherein the user audio preference information is associated with a particular theme, the method further comprising the steps of:

receiving a user selection for the particular theme; and

identifying the user preference information associated with the particular theme.

Claims 7-8 (Canceled):

9.   (Previously Presented)   The method of claim 1, wherein the audio piece, the audio characteristic information, or both, is received over a radio broadcast network.

Claim 10 (Canceled).

11.   (Previously Presented) The method of claim 1, wherein the audio piece, the audio characteristic information, or both, is received over a computer network.

Claims 12-17 (Canceled).

18.   (Previously Presented)   In a communication network including a user station, a method for creating a customized audio program comprising:

receiving a plurality of audio pieces from one or more audio sources;

storing the received plurality of audio pieces in a first database;

automatically processing audio signals of at least one of the plurality of audio pieces in the first database and, based on the automatic processing of the audio signals, generating an audio feature vector having a plurality of first fields representing a plurality of audio

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characteristics, each first field storing a value representing an extent of the associated audio characteristic present in the audio piece;

receiving user audio preference information;

generating a user preference vector based on the user audio preference information, the user preference vector having a plurality of second fields representing the audio characteristics represented by the plurality of first fields, each second field storing a value for the corresponding audio characteristic based on the user audio preference information;

computing a distance between the audio feature vector and the user audio preference vector;

selecting the audio piece based on the computed distance; and

transmitting the selected audio piece to a user station over a computer network.

19.   (Original)   The method of claim 18, wherein the audio characteristic information indicates subject matter content of the associated audio piece.

20.   (Original)   The method of claim 18, wherein the audio piece includes music.

21.   (Original)   The method of claim 18, wherein the audio piece includes voice.

22.   (Original)   The method of claim 18, wherein the audio piece includes an advertisement.

23.   (Original)   The method of claim 18, wherein the user audio preference information is associated with a particular theme, the method further comprising the steps of:

receiving a user selection for the particular theme; and

identifying the user preference information associated with the particular theme.

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24.   (Currently Amended) A system for creating a customized audio program comprising:

a first processor processing audio signals of an audio piece and compiling audio characteristic information including acoustic information associated with the audio piece based on the processed audio signals;

a first input receiving user audio preference information; and

a second processor coupled to the first input for:

comparing the user audio preference information with the audio characteristic information,

selecting the audio piece based on the comparison and further based on a detected broadcast time scheduled for the audio piece,

receiving the audio piece broadcast according to the scheduled broadcast time,

storing at least a portion of the received audio piece, and

outputting at least the portion of the received audio piece responsive to [[the]] a detected playback condition.

25.   (Original)   The system of claim 24, wherein the audio characteristic information indicates subject matter content of the associated audio piece.

26.   (Original)   The system of claim 24, wherein the audio piece includes music.

27.   (Original)   The system of claim 24, wherein the audio piece includes voice.

28.   (Original)   The system of claim 24, wherein the audio piece includes an advertisement.

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29.   (Original)   The system of claim 24, wherein the user audio preference information is associated with a particular theme, the system further comprising a third input at the user station for receiving a user selection for the particular theme.

Claim 30 (Canceled).

31.   (Original)   The system of claim 24 further comprising a transmitter coupled to the first processor for transmitting the audio piece and the audio characteristic information to a user station.

32.   (Previously Presented)   The system of claim 24, wherein the audio piece, the audio characteristic information, or both, is received over a radio broadcast network.

33.   (Previously Presented)   The system of claim 24, wherein the audio piece, the audio characteristic information, or both, is received over a computer network.

Claims 34-39 (Canceled).

40.   (Previously Presented) A system for transmitting a customized audio program comprising:
        means for receiving a plurality of audio pieces;
        a first database coupled to the means for receiving for storing the received plurality of audio pieces;
        a first processor processing audio signals of at least one of the plurality of audio pieces in the first database and, based on the automatic processing of the audio signals, generating an audio feature vector having a plurality of first fields representing a plurality of audio characteristics, each first field storing a value representing an extent of the associated audio characteristic present in the audio piece;

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an input for receiving user audio preference information;

a second processor coupled to the first database, the second database, and the input, the second processor generating a user preference vector based on the user audio preference information, the user preference vector having a plurality of second fields representing the audio characteristics represented by the plurality of first fields, each second field storing a value for the corresponding audio characteristic based on the user audio preference information, the second processor further computing a distance between the audio feature vector and the user audio preference vector and selecting the audio piece based on the computed distance;

a network connection coupled to the second processor for transmitting the selected audio piece to a user station over a computer network.

41.   (Original)   The system of claim 40, wherein the audio characteristic information indicates subject matter content of the associated audio piece.

42.   (Original)   The system of claim 40, wherein the audio piece includes music.

43.   (Original)   The system of claim 40, wherein the audio piece includes voice.

44.   ·(Original)   The system of claim 40, wherein the audio piece includes an advertisement.

45.   (Original)   The system of claim 40, wherein the user audio preference information is associated with a particular theme, and the input further receives a user selection for the particular theme.

46.   (Previously Presented) The method of claim 1, wherein the comparing and selecting of the audio piece are preformed by a user station receiving the audio piece broadcast according to the scheduled broadcast time.

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Claim 47 (Canceled).

48.   (Previously Presented) The system of claim 24, wherein the first processor is equal to the second processor.

Claim 49 (Canceled).

50.   (Previously Presented) The system of claim 40, wherein the first processor is equal to the second processor.

51.   (Previously Presented) A system for creating a customized audio program comprising:

a processor automatically processing and generating acoustic analysis data for a plurality of audio pieces;

one or more transmitters transmitting the plurality of audio pieces over a plurality of broadcast channels according to broadcast times scheduled for the plurality of audio pieces:

a user station including a tuner and a buffer, the user station being configured to:

receive user preference data;

retrieve the acoustic analysis data for the plurality of audio pieces;

compare the user preference data with the acoustic analysis data;

select one or more of the plurality of audio pieces based on the comparison and further based on detected broadcast times scheduled for the one or more of the plurality of audio pieces;

control the tuner to automatically tune to one or more of the broadcast channels broadcasting the one or more of the plurality of audio pieces in response to the selection;

store the one or more of the plurality of audio pieces tuned to by the tuner in the buffer;

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   detect a playback condition; and

   output the audio pieces stored in the buffer responsive to the detected playback

condition.

  52. (Currently Amended) The system of claim 51 wherein the user station sets a

[[new]] user-scheduled play time for at least one of the one or more of the plurality of audio

pieces, and automatically plays the audio pieces stored in the buffer based on the [[new]] user-

scheduled play time.

  53. (Previously Presented) The system of claim 51, wherein the broadcast channels

are data communication channels transmitting the plurality of audio pieces over a computer

network.

  54. (Previously Presented) A computer-implemented method for creating a

customized audio program comprising:

   comparing user acoustic preference data with acoustic analysis data associated with a

plurality of audio pieces;

   selecting two or more of the plurality of audio pieces based on the comparison and

further based on detected broadcast times scheduled for the two or more of the plurality of audio

pieces;

   receiving the plurality of audio pieces broadcast via a plurality of broadcast channels

according to scheduled broadcast times;

   automatically switching between two or more of the broadcast channels for tuning to the

selected two or more of the plurality of audio pieces according to their scheduled broadcast

times; and

   generating an output based on the tuned audio pieces.

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55.   (Previously Presented) The system of claim 54, wherein the broadcast channels are data communication channels transmitting the plurality of audio pieces over a computer network.

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